January 19, 2023

Jon Beem Project Manager D.R. Horton – Seattle Division 11241 Slater Ave NE, Suite 200 Kirkland, WA 98033

Site: Parkland Heights

4929 Issaquah-Pine Lake Rd. SE

Issaquah, WA 98029 TPN: 2224069039

Parcel size: 230,925 sq. ft = 5.3 acres

Re: RFI all corrections and additions are highlighted in yellow

Thank you for requesting my services. On January 5th, 2022, I performed a Level 2 Tree Risk Assessment (TRA) for all significant* trees growing on the site above, as well as the ROW trees and those trees located offsite with canopies that overhung the property.

The information gathered and included in this report is a necessary part of the of the plat development which requires that a Tree Retention Plan to be submitted as part of a proposed site development (IMC 18.12.1385) to include twenty-three (23) new SFR. Because there are twenty (20) significant non-viable ROW trees that need to be removed as well as five (5) viable trees, I have added an additional calculation summary for those trees to be easily identified.

In summary:

| Onsite Significant Tree Retention Calculations | |
|--|------|
| Total number of significant onsite trees | 123 |
| Total number of significant non-viable trees | 66 |
| Total number of significant viable trees | 57 |
| Total number of significant (viable) trees removed for site improvements | 23 |
| Total number of significant trees DBH inches | 2234 |
| Total number of viable significant tree DBH inches | 1278 |
| Total number of required significant tree DBH inches (2234 X .3) | 670 |
| Total number of retained significant tree DBH inches | 685 |
| Mitigation | 0 |

| ROW & Offsite Significant Tree Retention Calculations | |
|--|-----|
| Total number of significant ROW trees | 36 |
| Total number of non-viable significant ROW trees | 20 |
| Total number of viable significant ROW trees | 16 |
| Total number of ROW viable significant trees to be removed | 5 |
| Total number of significant tree DBH inches | 542 |
| Total number of viable significant tree DBH inches | 234 |
| Total number of retained significant tree DBH inches | 152 |

I have included a detailed report of my findings, if you have any questions, please contact me. I can be reached on my cell phone: 425.890.3808 or by email: sprince202@aol.com.

Warm regards,

Susan R

Susan Prince

Creative Landscape Solutions ISA Certified Arborist #1481 TRAQ Certified Arborist #481 Landscape Designer 425.890.3808

*The City of Issaquah's significant tree definition per IMC 18.12.030 Is:

Tree, significant: A tree at least six (6) inches or grader at d.b.h. or an alder or cottonwood tree eight (8) inches or greater at d.b.h. Any trees that are listed on the King County complete wed list shall not be considered significant. The King County weed list includes Class A noxious weeds, Class B noxious weeks, Class C noxious weeds, nonregulated noxious weeds or weeds of concern lists as adopted by King County noxious weed list, in accordance with Chapter 17.10 RCW and Chapter 16-750 WAC

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Personal qualifications, scope of work and methodology:

To evaluate the trees and prepare the report, I drew on my formal college education in botany and the preparation and training used to obtain my ISA certification. In addition to my education and certification, I relied heavily on my training to obtain my certification as a Tree Risk Assessor. I have been worked in arboriculture since 1995 and been an ISA Certified Arborist since 1999. I have been TRACE/TRAQ qualified since 2009.

I followed protocol delineated by the International Society of Arboriculture (ISA) for Level 2 Tree Risk Assessment (TRA). By doing so, I am examining each tree independently as well as collectively as groups or stands of trees provide stability and can lower risk of independent tree failure. This scientific process examines tree health (e.g., size, vigor, and insect and disease process) as well as site conditions (soil moisture and composition, quantity of impervious surfaces surrounding the tree etc.)

Methods used to determine tree location and tree health:

Trees were identified previously by numbered aluminum tags attached to the western side of the tree. All the trees on site were examined using the Matheny and Clark¹ criteria for determining the potential hazard of trees in an urban environment as well as the Tree Risk Assessment in Urban Areas and The Urban/Rural Interface by Julian Dunster². Tree diameters were measured using a logger's tape, and tree driplines were measured in four directions, if necessary, by a Nikon Forestry PRO Laser RangefinderTM.

Abbreviated Legend (See report for greater detail)

- 1. Numerical ordering
- 2. Tree tag #: numbered aluminum tags attached to the trees in the field
- 3. Tree species ID: common and botanical names
 - Apple: Malus sp.
 - American sycamore: *Plantanus*
 - occidentalis
 - Austrian pine: Pinus nigra
 - Bigleaf maple: Acer macrophyllum
 - Birch: Betula nigra
 - Bitter Cherry: *Prunus emarginata*
 - Blue atlas cedar: Cedrus atlantica 'Glauca'
 - Cedar: Thuja plicata
 - Cherry: Prunus sp.
 - Dawn redwood: *Chamaecyparis* nootkatensis
 - Deodora cedar: Cedrus deodara
 - Colorado blue spruce: *Picea pungens*
 - Cottonwood: Populus trichocarpa
 - Dogwood: Cornus nuttallii
 - Douglas fir: Pseudotsuga menziesii
 - English laurel: *Prunus laurocerasus*

- Filbert: Corylus avellana var.
- Grand fir: Abies grandis
- Hemlock: Tsuga hetrophylla
- Holly: Ilex aquifolium
- Japanese maple: Acer palmatum
- Leylandii cypress: *Cupressocyparis leylandii*
- Lodgepole pine: Pinus contorta
- Mountain ash: Sorbus americana
- Mountain hemlock: Tsuga mertensiana
- Pear: *Pyrus sp.*
- Plum: Prunus
- Red Alder: Alnus rubra
- Red maple: Acer rubrum
- Walnut: Juglans sp.
- Western red cedar: Thuja plicata
- Weeping Alaska cedar:
 Metaseauoia alvptostrobides
- White pine: Pinus strobus
- 4. DBH: diameter of the tree measured in inches at 4' above grade
- 5. Adj. DBH: multiple trunk tree DBH in inches calculated per municipality directives
- 6. Dripline Radius: measurement in feet of the tree canopy from tree trunk to outermost branch tip via laser rangefinder

- 7. Windfirm: whether the tree is not protected by other structures of trees remains windfirm
- 8. Health: a measurement of overall tree vigor and vitality rated as excellent, good, OK, fair or poor based on an assessment of crown density, leaf color and size, active callusing, shoot growth rate, extent of crown dieback, cambium layer health, and tree age
 - Excellent: Tree is an ideal specimen for the species with no obvious flaws
 - Good: Tree has minimal structural or situational defects
 - OK: Minimal structural issues with poor
 - Fair: Tree has structural or health issues that predispose it to failure if further stressed but can be retained in a grove of 3 or more trees
 - Poor: Tree has significant structural and/or health issues. It is exempt from total tree count.
- 9. Defects/Concerns: a measure of the tree's structural stability and failure potential based on assessment of specific structural features, e.g., decay, conks, co-dominant trunks, included bark, abnormal lean, one-sided canopy, history of failure, prior construction impact, pruning history, etc.

10. Proposed actions:

- Retain
- Remove due to planned development (tree is otherwise healthy)
- Hazardous: A hazardous tree is one that is so affected by a significant structural defect or
 disease or in permanent decline that falling, or failure appears imminent, and that
 otherwise currently poses a threat to life or property and the risk of failure per the most
 recent adopted ISA standard tree risk assessment evaluation must be rated greater than
 or equal to "high" as measured on the tree risk assessment form. (IMC 18.12.030)
- 11. Limits of disturbance/Tree protection zone: the area surrounding the tree that defines the area that surrounds the trunk that cannot be encroached upon during construction. This may be a multiple of the trunk diameter (1 -1.5 times the trunk diameter converted to feet) or it may be related to the width of the canopy. It is always determined by tree species and environment and is up to the discretion of the ISA Certified Arborist to determine. In the City of Issaquah, the LOD is understood to be the dripline of the tree.
- 12. Measure of tree "value" may be determined by municipality formula or a direct measure of the trunk diameter, or a numerical count to determine significance; also included on the status of the tree determined by the city to designate exceptional sized or species trees (not always present) In the City of Issaquah, the tree "value" is equal to the trees DBH

Specific Tree Observations:

| Spe | CITIC | Tree Obse | rvatio | ns: | | 1 | | T | | 1 | | | | | | | | | |
|-----|----------|--------------------|-------------|-------------|------------------------|---------------|----------------|--------|---|--------|------------|--------------|----|-------|----|----|-----|---------|----------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 7 | 8 | 9 | | 10 | | | 1 | 1 | | | 12 | |
| | Tree | | | Adj. | Drip- | | | | | Propo | sed A | otion | | RZ/TF | | | | DBH | рвн |
| # | Tag # | Species ID | DBH (in) | DBH (in) | line radius (ft) | Wind- firm | OK in Grove | Health | Defects/Comments | Viable | Non-viable | Construction | N | W | Е | S | DBH | Healthy | Retained |
| 1 | 309 | Lombardy poplar | 40 | 40 | 10 | | | ОК | Asymmetric canopy towards south, typical of species | 1 | | | 10 | 10 | 10 | 10 | 40 | 40 | 40 |
| 2 | 310 | Lombardy poplar | 34 | 34 | 12 | | Y | Fair | Co-dominant leaders with included bark x2 @ 6', dead wood, broken branches, typical of species | 1 | | | 12 | 12 | 12 | 12 | 34 | 34 | 34 |
| 3 | 311 | Douglas fir | 14 | 14 | 18 | | | ОК | Dead wood, broken branches, asymmetric canopy towards south, thin canopy, typical of species | 1 | | | 18 | 18 | 18 | 18 | 14 | 14 | 14 |
| 4 | 312 | Douglas fir | 12 | 12 | 16 | | | ОК | Co-dominant canopy, dead wood, broken branches, dead twigs, lean towards north | 1 | | | 16 | 16 | 16 | 16 | 12 | 12 | 12 |
| 5 | 313 | Lombardy poplar | 36 | 36 | 10 | | | OK | Dead wood, broken branches, typical of species | 1 | | | 10 | 10 | 10 | 10 | 36 | 36 | 36 |
| 6 | 314 | Douglas fir | 18, 6 | 19 | 18 | | | OK | Co-dominant leaders with included bark x2 @ 4', asymmetric canopy towards east, thin canopy, dead wood, broken branches, typical of species | 1 | | | 18 | 18 | 18 | 18 | 19 | 19 | 19 |
| 7 | 315 | Douglas fir | 16 | 16 | 18 | | | ОК | Asymmetric canopy towards east, co-dominant canopy, thin canopy, dead wood, broken branches, typical of species | 1 | | | 18 | 18 | 18 | 18 | 16 | 16 | 16 |
| 8 | 316 | Douglas fir | 20 | 20 | 18 | | | ОК | Co-dominant canopy, thin canopy, typical of species | 1 | | | 18 | 18 | 18 | 18 | 20 | 20 | 20 |
| 9 | 317 | Douglas fir | 14 | 14 | 18 | | Y | Fair | Co-dominant canopy, previous top loss, elongated branches, asymmetric | 1 | | | 18 | 18 | 18 | 18 | 14 | 14 | 14 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 7 | 8 | 9 | | 10 | | | 1 | | | | 12 | |
|----|----------|----------------------|----------------------------|-------------|----------------|-------|-------|--------|---|--------|------------|--------------|----|-------|--------|----|------|---------|----------|
| | | | | | Duin | | | | | | osed A | | | RZ/TF | | | | рвн | DBH |
| | Tree | | DBH | Adj. | Drip- line | Wind- | OK in | | | Ret. | Rem | | R | adius | in fee | et | I | , DI | |
| # | Tag # | Species ID | (in) | DBH (in) | radius (ft) | firm | Grove | Health | Defects/Comments | Viable | Non-viable | Construction | N | W | Е | S | DBH | Healthy | Retained |
| | | | | | | | | | canopy towards east, typical of species | | | | | | | | | | |
| 10 | 318 | Douglas fir | 6, 6, 4, 3 | 10 | 12 | | | ОК | Co-dominant leaders with included bark x4 @ root crown, suppressed canopy, typical of species | 1 | | | 12 | 12 | 12 | 12 | 10 | 10 | 10 |
| 11 | 319 | Western red cedar | 14, 14, 12, 11, 6 | 26.5 | 14 | | Y | Fair | Co-dominant leaders with included bark x5 @ 2', thin canopy, typical of species | 1 | | | 14 | 14 | 14 | 14 | 26.5 | 26.5 | 26.5 |
| 12 | 320 | Western red cedar | 14 | 14 | 18 | | | ОК | Suppressed canopy, thin canopy, dead wood, broken branches | 1 | | | 18 | 18 | 18 | 18 | 14 | 14 | 14 |
| 13 | 321 | Western red cedar | 8, 7, 8 | 13.5 | 14 | | Y | Fair | Co-dominant leaders with included bark x3 @ 2', suppressed canopy, thin canopy | 1 | | | 14 | 14 | 14 | 14 | 13.5 | 13.5 | 13.5 |
| 14 | 322 | Douglas fir | 28 | 28 | 20 | | | ОК | Low live crown ratio <30%, dominant canopy, dead wood, broken branches, typical of species | 1 | | | 20 | 20 | 20 | 20 | 28 | 28 | 28 |
| 15 | 323 | Western red cedar | 12, 6 | 13.5 | 16 | | | OK | Co-dominant leaders with included bark x2 @ 3', suppressed canopy, asymmetric canopy towards east, dead wood, broken branches, typical of species | 1 | | | 16 | 16 | 16 | 16 | 13.5 | 13.5 | 13.5 |
| 16 | 324 | Douglas fir | 22 | 22 | 24 | | | ОК | Dominant canopy, hanger, asymmetric canopy towards east, typical of species | 1 | | | 24 | 24 | 24 | 24 | 22 | 22 | 22 |

| 1 | 2 | 3 | 4 | 5 | 6 | - | 7 | 8 | 9 | | 10 | | | 1 | 1 | | | 12 | |
|----|----------|----------------------------|--------------|-------------|------------------------|----------------|----------------|--------|---|--------|------------|--------------|----|-------|--------|----|------|-------------|----------|
| | | | | | | | | | | Propo | osed A | ction | С | RZ/TF | Z/LO | D | | - | I |
| | Tree | | 5511 | Adj. | Drip- | 14 () 1 | 014 : | | | Ret. | Rem | nove | R | adius | in fee | et | _ | DBI | DBH |
| # | Tag # | Species ID | DBH (in) | DBH (in) | line radius (ft) | Wind- firm | OK in Grove | Health | Defects/Comments | Viable | Non-viable | Construction | N | W | Е | S | DBH | Healthy DBH | Retained |
| 17 | 325 | Western red cedar | 10, 8, 10 | 16 | 14 | | | ОК | Co-dominant leaders with included bark x3 @ 3', suppressed canopy, thin canopy, low live crown ratio <30% | 1 | | | 14 | 14 | 14 | 14 | 16 | 16 | 16 |
| 18 | 326 | Bigleaf maple | 18, 10 | 20.5 | 26 | | | OK | Co-dominant leaders with included bark x3 reduced to 2 @ root crown, moss and lichen, asymmetric canopy towards east, typical of species | | | 1 | 26 | 26 | 26 | 26 | 20.5 | 20.5 | |
| 19 | 327 | Cherry | 36 | 36 | 28 | | | Fair | Exposed roots, moss and lichen, multiple cavities in trunk | | 1 | | 28 | 28 | 28 | 28 | 36 | | |
| 20 | 328 | Colorado blue spruce | 16 | 16 | 12 | | | Fair | Topped @ 12', multiple poor leaders | | 1 | | 12 | 12 | 12 | 12 | 16 | | |
| 21 | 329 | Douglas fir | 24 | 24 | 18 | | | ок | Co-dominant canopy, exposed roots, moss and lichen, asymmetric canopy towards east, typical of species | | | 1 | 18 | 18 | 18 | 18 | 24 | 24 | |
| 22 | 330 | Douglas fir | 29 | 29 | 20 | | Y | Fair | Co-dominant leaders with included bark x2 @ 12', torque crack @ 3' up to 12' towards west, dead wood, broken branches, asymmetric canopy towards east, typical of species | | | 1 | 20 | 20 | 20 | 20 | 29 | 29 | |
| 23 | 331 | Douglas fir | 29 | 29 | 18 | | | ОК | Exposed roots, thin canopy, typical of species | 1 | | | 18 | 18 | 18 | 18 | 29 | 29 | 29 |
| 24 | 332 | Douglas fir | 33 | 33 | 20 | | Y | Fair | Co-dominant leaders with included bark x2 @ 40', dead wood, broken branches, previous top loss, elongated branches | | | 1 | 20 | 20 | 20 | 20 | 33 | 33 | |

| 1 | 2 | 3 | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | | | 1 | 1 | | | 12 | |
|----|----------|------------------|-------------|-------------|------------------------|---------------|----------------|--------|---|--------|------------|--------------|----|-------|--------|----|-----|-------------|--------------|
| | | | | | | | | | | Propo | sed A | ction | С | RZ/TP | Z/LO | D | | I | Į. |
| | Tree | | DDII | Adj. | Drip- | \ | 014 : | | | Ret. | Rem | nove | R | adius | in fee | et | + | DB | DB |
| # | Tag # | Species ID | DBH (in) | DBH (in) | line radius (ft) | Wind- firm | OK in Grove | Health | Defects/Comments | Viable | Non-viable | Construction | N | W | E | S | DBH | Healthy DBH | Retained DBH |
| 25 | 333 | Douglas fir | 33 | 33 | 18 | | | OK | Slight self-corrected lean towards west, asymmetric canopy towards east, previous top loss, elongated branches, dead wood, broken branches, low live crown ratio <30% | | 1 | | 18 | 18 | 18 | 18 | 33 | 33 | |
| 26 | 334 | Douglas fir | 23 | 23 | 18 | | Y | Fair | Previous top loss, elongated branches, weak leader, asymmetric canopy towards east | 1 | | | 18 | 18 | 18 | 18 | 23 | 23 | 23 |
| 27 | 335 | Douglas fir | 33 | 33 | 20 | | | OK | Previous top loss, elongated branches, dead wood, broken branches, typical of species | 1 | | | 20 | 20 | 20 | 20 | 33 | 33 | 33 |
| 28 | 336 | Bigleaf maple | 34 | 34 | 24 | | | ОК | Girdled roots, co-dominant leaders with included bark x4 @ 6', moss and lichen, previous top loss, asymmetric canopy towards west | | | 1 | 24 | 24 | 24 | 24 | 34 | 34 | |
| 29 | 337 | Douglas fir | 44 | 44 | 24 | | | OK | Previous top loss, elongated branches, dead wood, broken branches, exposed roots, typical of species | 1 | | | 24 | 24 | 24 | 24 | 44 | 44 | 44 |
| 30 | 338 | Douglas fir | 18 | 18 | 18 | | | OK | Dead wood, broken branches, low live crown ratio <30%, typical of species | 1 | | | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| 31 | 339 | Dawn redwood | 8 | 8 | 10 | | Y | Fair | Vertical crack @ 2' up to 3' towards north, previous top loss @ 30', weak leader, suppressed canopy | 1 | | | 10 | 10 | 10 | 10 | 8 | 8 | 8 |
| 32 | 340 | Douglas fir | 24 | 24 | 18 | | Y | Fair | Previous top loss, elongated branches, dead wood, broken branches, codominant leaders with included bark x2 @ 25' | 1 | | | 18 | 18 | 18 | 18 | 24 | 24 | 24 |

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| 1 | 2 | 3 | 4 | 5 | 6 | - | 7 | 8 | 9 | | 10 | | | 1 | 1 | | | 12 | |
|----|----------|----------------------|-------------|-------------|------------------------|---------------|----------------|--------|--|--------|------------|--------------|----|-------|--------|----|-----|-------------|--------------|
| | | | | | | | | | | Propo | osed A | ction | С | RZ/TF | Z/LO | D | | + | I |
| | Tree | | DDII | Adj. | Drip- | \A/:l | OV in | | | Ret. | Rem | nove | R | adius | in fee | et | _ | DBł | I DB |
| # | Tag # | Species ID | DBH (in) | DBH (in) | line radius (ft) | Wind- firm | OK in Grove | Health | Defects/Comments | Viable | Non-viable | Construction | Ν | W | E | S | DBH | Healthy DBH | Retained DBH |
| 33 | 341 | Douglas fir | 27 | 27 | 18 | | | ОК | Previous top loss, elongated branches, dead wood, broken branches, dominant canopy, typical of species | 1 | | | 18 | 18 | 18 | 18 | 27 | 27 | 27 |
| 34 | 342 | Western red cedar | 13 | 13 | 14 | | | ОК | Lean towards west, thin canopy, co-dominant canopy | 1 | | | 14 | 14 | 14 | 14 | 13 | 13 | 13 |
| 35 | 343 | Douglas fir | 24 | 24 | 18 | | | ОК | Hanger, co-dominant canopy, typical of species | 1 | | | 18 | 18 | 18 | 18 | 24 | 24 | 24 |
| 36 | 344 | Western red cedar | 7, 7 | 10 | 14 | | | ОК | Co-dominant leaders with included bark x2 @ root crown, suppressed canopy, thin canopy, typical of species | 1 | | | 14 | 14 | 14 | 14 | 10 | 10 | 10 |
| 37 | 345 | Incense cedar | 6, 8, 16 | 19 | 16 | | | OK | Co-dominant leaders with included bark x3 @ root crown, typical of species | 1 | | | 16 | 16 | 16 | 16 | 19 | 19 | 19 |
| 38 | 346 | White pine | 14 | 14 | 12 | | | ОК | Thin canopy, free flowing sap, typical of species | 1 | | | 12 | 12 | 12 | 12 | 14 | 14 | 14 |
| 39 | 347 | White pine | 24 | 24 | 15 | | | ОК | Dead wood, broken branches, moss and lichen, typical of species | 1 | | | 15 | 15 | 15 | 15 | 24 | 24 | 24 |
| 40 | 348 | Norway spruce | 18 | 18 | 16 | | Y | Fair | Spruce adelgid, dead wood, broken branches, no taper, exposed roots | | | 1 | 16 | 16 | 16 | 16 | 18 | 18 | |
| 41 | 349 | Norway spruce | 18 | 18 | 16 | | Y | Fair | Self-corrected lean towards south, dead wood, broken branches, moss and lichen, Spruce adelgid | | | 1 | 16 | 16 | 16 | 16 | 18 | 18 | |
| 42 | 350 | Western red cedar | 26 | 26 | 14 | | | OK | Dominant canopy, dead wood, broken branches, dead twigs, typical of species | | | 1 | 14 | 14 | 14 | 14 | 26 | 26 | |
| 43 | 351 | Deodora cedar | 23 | 23 | 16 | | | ОК | Cavity @ root crown up to 5' towards east, abnormal bark, shedding bark, thin canopy, dead wood, broken branches, typical of species | | | 1 | 16 | 16 | 16 | 16 | 23 | 23 | |

| 1 | 2 | 3 | 4 | 5 | 6 | - | 7 | 8 | 9 | | 10 | | | 1 | 1 | | | 12 | |
|----|----------|----------------------------|------------------|-------------|------------------------|---------------|----------------|--------|--|--------|------------|--------------|----|-------|--------|----|------|---------|--------------|
| | | | | | | | | | | Propo | sed A | ction | С | RZ/TF | PZ/LO | D | | _ | I |
| | Tree | | D.D.I. | Adj. | Drip- | \A/:l | OV in | | | Ret. | Ren | nove | R | adius | in fee | et | _ | DBH | DB |
| # | Tag # | Species ID | DBH (in) | DBH (in) | line radius (ft) | Wind- firm | OK in Grove | Health | Defects/Comments | Viable | Non-viable | Construction | N | w | E | S | DBH | Healthy | Retained DBH |
| 44 | 352 | Deodora cedar | 25 | 25 | 18 | | | ОК | Topped @ 25', strong leaders, cabling rope? @ 35' | | | 1 | 18 | 18 | 18 | 18 | 25 | 25 | |
| 45 | 353 | White pine | 24 | 24 | 18 | | Υ | Fair | No taper, bulge @ root crown, co-dominant leaders with included bark x2 @ 20', low live crown ratio <20% | | | 1 | 18 | 18 | 18 | 18 | 24 | 24 | |
| 46 | 354 | Deodora cedar | 36 | 36 | 24 | | | Fair | Previously topped @ 20', multiple weak fused leaders | | 1 | | 24 | 24 | 24 | 24 | 36 | | |
| 47 | 355 | White pine | 30 | 30 | 20 | | | Fair | Self-corrected lean towards south, thin canopy | | 1 | | 20 | 20 | 20 | 20 | 30 | | |
| 48 | 356 | Colorado blue spruce | 19 | 19 | 16 | | | ОК | Free flowing sap, Spruce adelgid, dead wood, broken branches, typical of species | | | 1 | 16 | 16 | 16 | 16 | 19 | 19 | |
| 49 | 357 | Colorado blue spruce | 18 | 18 | 14 | | | OK | Asymmetric canopy towards east, dead wood, broken branches, dead twigs, Spruce adelgid | | | 1 | 14 | 14 | 14 | 14 | 18 | 18 | |
| 50 | 358 | Colorado blue spruce | 17 | 17 | 14 | | | ОК | Asymmetric canopy towards east, dead wood, broken branches, dead twigs, Spruce adelgid | | | 1 | 14 | 14 | 14 | 14 | 17 | 17 | |
| 51 | 359 | Chestnut | 16, 15, 12 | 25 | 20 | | | Fair | Co-dominant leaders with included bark x3 @ root crown, lean towards west, moss and lichen, vertical crack @ root crown up to 3' towards east, woodpecker activity | | 1 | | 20 | 20 | 20 | 20 | 25 | | |
| 52 | 360 | White pine | 36 | 36 | 24 | | | OK | Multiple large diameter leaders @ 8', dead wood, broken branches, typical of species | | | 1 | 24 | 24 | 24 | 24 | 36 | 36 | |
| 53 | 361 | Apple | 12, 13 | 17.5 | 14 | | | Fair | Co-dominant leaders with included bark x2 @ root crown, moss and lichen, decay throughout, poor pruning with decay | | 1 | | 14 | 14 | 14 | 14 | 17.5 | | |

Susan Prince ISA Certified Arborist #PNW 1481 – A TRAQ/TRACE Certified #481 **Creative Landscape Solutions**

425.890.3808

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 7 | 8 | 9 | | 10 | | | 1 | | | | 12 | |
|----|----------|----------------------|------------------|-------------|------------------------|---------------|----------------|--------|--|--------|------------|--------------|----|-------|--------|----|------|-------------|----------|
| | | | | | | | | | | Propo | sed A | ction | С | RZ/TP | Z/LO | D | | т | Į |
| | Tree | | DDII | Adj. | Drip- |) A / :! | OK in | | | Ret. | Rem | nove | R | adius | in fee | et | _ | DBł | I DВН |
| # | Tag # | Species ID | DBH (in) | DBH (in) | line radius (ft) | Wind- firm | OK in Grove | Health | Defects/Comments | Viable | Non-viable | Construction | Ν | W | E | S | DBH | Healthy DBH | Retained |
| 54 | 362 | Apple | 15 | 15 | 16 | | Y | Fair | Moss and lichen, poor pruning with decay, woodpecker activity, typical of species | | | 1 | 16 | 16 | 16 | 16 | 15 | 15 | |
| 55 | 363 | Deodora cedar | 21 | 21 | 18 | | | ОК | Thin canopy, dead wood, broken branches, typical of species | | | 1 | 18 | 18 | 18 | 18 | 21 | 21 | |
| 56 | 364 | River birch | 17, 22, 28 | 39.5 | 26 | | Y | Fair | Co-dominant leaders with included bark x3 @ root crown, moss and lichen, dead wood, broken branches, woodpecker activity, dead scaffolds | | | 1 | 26 | 26 | 26 | 26 | 39.5 | 39.5 | |
| 57 | 365 | Deodora cedar | 35 | 35 | 21 | | | ОК | Thin canopy, hanger, typical of species | | | 1 | 21 | 21 | 21 | 21 | 35 | 35 | |
| 58 | 366 | Cherry | 19 | 19 | 18 | | | Fair | Woodpecker activity, exposed roots, gummosis, moss and lichen, cavity @ root crown up to 1' towards south | | 1 | | 18 | 18 | 18 | 18 | 19 | | |
| 59 | 367 | River birch | 8, 9 | 12 | 10 | | | Poor | Co-dominant leaders with included bark x2 @ root crown, girdled by tractor equipment | | 1 | | 10 | 10 | 10 | 10 | 12 | | |
| 60 | 368 | River birch | 10 | 10 | 16 | | | Poor | Moss and lichen, lean towards east, girdled by plastic | | 1 | | 16 | 16 | 16 | 16 | 10 | | |
| 61 | 373 | Douglas fir | 17 | 17 | 12 | | | Poor | Topped @ 30' | | 1 | | 12 | 12 | 12 | 12 | 17 | | |
| 62 | 374 | Douglas fir | 22 | 22 | 12 | | | Poor | Topped @ 20' | | 1 | | 12 | 12 | 12 | 12 | 22 | | |
| 63 | 375 | Western red cedar | 14 | 14 | 16 | | | Poor | Tag on #376, topped @ 30' | | 1 | _ | 16 | 16 | 16 | 16 | 14 | | |
| 64 | 376 | Douglas fir | 14 | 14 | 18 | | | Poor | Topped @ 30' | | 1 | | 18 | 18 | 18 | 18 | 14 | | |
| 65 | 377 | Douglas fir | 18 | 18 | 16 | | | Poor | Topped @ 30' | | 1 | | 16 | 16 | 16 | 16 | 18 | | |
| 66 | 378 | Douglas fir | 14 | 14 | 16 | | | Poor | Topped @ 20' | | 1 | | 16 | 16 | 16 | 16 | 14 | | |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 7 | 8 | 9 | | 10 | | | 1 | | | | 12 | |
|----|----------|------------------|--------------|-------------|------------------------|---------------|----------------|--------|--|--------|------------|--------------|----|-------|--------|----|-----|-------------|----------|
| | | | | | | | | | | Propo | sed A | ction | С | RZ/TF | Z/LO | D | | | _ |
| | Tree | | | Adj. | Drip- | | | | | Ret. | Rem | nove | R | adius | in fee | et | | DBH | DBH |
| # | Tag # | Species ID | DBH (in) | DBH (in) | line radius (ft) | Wind- firm | OK in Grove | Health | Defects/Comments | Viable | Non-viable | Construction | N | W | Е | S | DBH | Healthy DBH | Retained |
| 67 | 379 | Douglas fir | 10 | 10 | 6 | | | Poor | Mostly dead, topped @ 15' | | 1 | | 6 | 6 | 6 | 6 | 10 | | |
| 68 | 380 | Douglas fir | 16, 15 | 22 | 18 | | | Poor | Co-dominant leaders with included bark x2 @ root crown, topped @ 15', asymmetric canopy towards west | | 1 | | 18 | 18 | 18 | 18 | 22 | | |
| 69 | 381 | Douglas fir | 9 | 9 | 2 | | | Poor | Topped @ 20', mostly dead | | 1 | | 2 | 2 | 2 | 2 | 9 | | |
| 70 | 382 | Douglas fir | 10 | 10 | 8 | | | Poor | Topped @ 20' | | 1 | | 8 | 8 | 8 | 8 | 10 | | |
| 71 | 383 | Douglas fir | 12 | 12 | 18 | | | Poor | Topped @ 20', weak leader, asymmetric canopy towards west | | 1 | | 18 | 18 | 18 | 18 | 12 | | |
| 72 | 384 | Douglas fir | 16, 14, 6 | 22 | 18 | | | Poor | Co-dominant leaders with included bark x3 @ root crown, topped @ 20', weak leaders, asymmetric canopy towards west | | 1 | | 18 | 18 | 18 | 18 | 22 | | |
| 73 | 385 | Douglas fir | 23 | 23 | 20 | | | Poor | Topped @ 15', asymmetric canopy towards west | | 1 | | 20 | 20 | 20 | 20 | 23 | | |
| 74 | 386 | Douglas fir | 14 | 14 | 10 | | | Poor | Topped @ 20' | | 1 | | 10 | 10 | 10 | 10 | 14 | | |
| 75 | 387 | Douglas fir | 8 | 8 | 6 | | | Poor | Tag on #386, topped @ 20', mostly dead, conks | | 1 | | 6 | 6 | 6 | 6 | 8 | | |
| 76 | 388 | Douglas fir | 12 | 12 | 12 | | | Poor | Tag on #386, topped @ 30', leaning on power lines towards east | | 1 | | 12 | 12 | 12 | 12 | 12 | | |
| 77 | 389 | Hemlock | 16 | 16 | 6 | | | Poor | Tag on #391, topped @ 20' | | 1 | | 6 | 6 | 6 | 6 | 16 | | |
| 78 | 390 | Douglas fir | 8 | 8 | 6 | | | Poor | Tag on #391, topped @ 20' | | 1 | | 6 | 6 | 6 | 6 | 8 | | |
| 79 | 391 | Hemlock | 12 | 12 | 8 | | | Poor | Topped @ 20' | | 1 | | 8 | 8 | 8 | 8 | 12 | | |
| 80 | 393 | Douglas fir | 14 | 14 | 8 | | | Poor | Topped @ 20' | | 1 | | 8 | 8 | 8 | 8 | 14 | | |
| 81 | 394 | Douglas fir | 8 | 8 | 8 | | | Poor | Tag on #395, topped @ 20' | | 1 | | 8 | 8 | 8 | 8 | 8 | | |
| 82 | 395 | Norway spruce | 14 | 14 | 12 | | | Poor | Topped @ 20' | | 1 | | 12 | 12 | 12 | 12 | 14 | | |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 7 | 8 | 9 | | 10 | | | 1 | 1 | | - | 12 | |
|----|----------|--------------------|-------------------|-------------|------------------------|-------|----------------|--------|---|--------|------------|--------------|----|-------|--------|----|------|-------------|----------|
| | | | | | | | | | | Propo | sed A | ction | С | RZ/TF | Z/LO | D | | I | I. |
| | Tree | | DRII | Adj. | Drip- | Wind- | OK im | | | Ret. | Rem | iove | R | adius | in fee | et | _ | DB | І ОВН |
| # | Tag # | Species ID | DBH (in) | DBH (in) | line radius (ft) | firm | OK in Grove | Health | Defects/Comments | Viable | Non-viable | Construction | N | 8 | Ш | S | DBH | Healthy DBH | Retained |
| 83 | 396 | Red alder | 8, 9 | 12 | 16 | | | Poor | Co-dominant leaders with included bark x2 @ root crown, topped @ 20', asymmetric canopy towards east, moss and lichen | | 1 | | 16 | 16 | 16 | 16 | 12 | | |
| 84 | 397 | Lombardy poplar | 40 | 40 | 14 | | | OK | Hanger, dead wood, broken branches, moss and lichen, typical of species | | | 1 | 14 | 14 | 14 | 14 | 40 | 40 | |
| 85 | 398 | Red alder | 15 | 15 | 16 | | | Poor | Vertical crack @ root crown up to 10' towards south, moss and lichen, previous top loss, conks | | 1 | | 16 | 16 | 16 | 16 | 15 | | |
| 86 | 399 | Hawthorne | 9, 14, 6, 6 | 18.5 | 16 | | | Poor | Co-dominant leaders with included bark x4 @ 1', moss and lichen, previous scaffold failure, twisted fused trunks, woodpecker activity | | 1 | | 16 | 16 | 16 | 16 | 18.5 | | |
| 87 | 400 | Douglas fir | 14, 16 | 21.5 | 16 | | | Poor | Co-dominant leaders with included bark x2 @ root crown, topped @ 25' | | 1 | | 16 | 16 | 16 | 16 | 21.5 | | |
| 88 | 401 | Cherry | 14, 9, 9 | 19 | 8 | | | Poor | Co-dominant leaders with included bark x3 @ root crown, mostly dead, topped @ 15' | | 1 | | 8 | 8 | 8 | 8 | 19 | | |
| 89 | 402 | Douglas fir | 9 | 9 | 14 | | | Poor | Topped @ 15', heaved soil | | 1 | | 14 | 14 | 14 | 14 | 9 | | |
| 90 | 403 | Douglas fir | 12 | 12 | 14 | | | Poor | Topped @ 30' | | 1 | | 14 | 14 | 14 | 14 | 12 | | |
| 91 | 404 | Douglas fir | 16, 16 | 22.5 | 16 | | | Poor | Co-dominant leaders with included bark x2 @ root crown, topped @ 20' | | 1 | | 16 | 16 | 16 | 16 | 22.5 | | |
| 92 | 405 | Douglas fir | 14, 16 | 21.5 | 16 | | | Poor | Co-dominant leaders with included bark x2 @ root crown, topped @ 30' | | 1 | | 16 | 16 | 16 | 16 | 21.5 | | |
| 93 | 412 | Douglas fir | 47 | 47 | 20 | | | Poor | Dead wood, broken branches, hangers, typical of species | | 1 | | 20 | 20 | 20 | 20 | 47 | | |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 7 | 8 | 9 | | 10 | | | 1 | | | Sayuaii | | |
|-----|----------|----------------------|--------------------|-------------|------------------------|---------------|----------------|--------|--|--------|------------|--------------|----|-------|--------|----|---------|-------------|----------|
| | | | | | | | | | | Propo | sed A | ction | С | RZ/TF | PZ/LO | D | | _ | I |
| | Tree | | | Adj. | Drip- | | 014.1 | | | Ret. | Rem | nove | R | adius | in fee | et | _ | DBF | DBH |
| # | Tag # | Species ID | DBH (in) | DBH (in) | line radius (ft) | Wind- firm | OK in Grove | Health | Defects/Comments | Viable | Non-viable | Construction | N | W | E | S | рвн | Healthy DBH | Retained |
| 94 | 414 | Western red cedar | 8 | 8 | 10 | | | OK | Typical of species | 1 | | | 10 | 10 | 10 | 10 | 8 | 8 | 8 |
| 95 | 415 | Bigleaf maple | 12, 10, 9, 5 | 18.5 | 15 | | Y | Fair | Co-dominant leaders with included bark x4 @ root crown, moss and lichen, previous top loss @ 15', typical of species | 1 | | | 15 | 15 | 15 | 15 | 18.5 | 18.5 | 18.5 |
| 96 | 416 | Bigleaf maple | 15 | 15 | 15 | | | ОК | Moss and lichen, typical of species | | | 1 | 15 | 15 | 15 | 15 | 15 | 15 | |
| 97 | 419 | Douglas fir | 20 | 20 | 20 | | | Poor | Topped @ 15' | | 1 | | 20 | 20 | 20 | 20 | 20 | | |
| 98 | 420 | Douglas fir | 12 | 12 | 8 | | | Poor | Topped @ 15' | | 1 | | 8 | 8 | 8 | 8 | 12 | | |
| 99 | 421 | Douglas fir | 14, 12, 4 | 19 | 10 | | | Poor | Co-dominant leaders with included bark x3 @ 2', topped @ 15', conks | | 1 | | 10 | 10 | 10 | 10 | 19 | | |
| 100 | 422 | Douglas fir | 14 | 14 | 10 | | | Poor | Topped @ 10', conks | | 1 | | 10 | 10 | 10 | 10 | 14 | | |
| 101 | 423 | Douglas fir | 14, 10 | 17 | 12 | | | Poor | Co-dominant leaders with included bark x2 @ root crown, topped @ 10' | | 1 | | 12 | 12 | 12 | 12 | 17 | | |
| 102 | 424 | Douglas fir | 8 | 8 | 16 | | | Poor | Tag on #425, asymmetric canopy towards east, topped @ 25' | | 1 | | 16 | 16 | 16 | 16 | 8 | | |
| 103 | 425 | Douglas fir | 10 | 10 | 12 | | | Poor | Topped @ 15', asymmetric canopy towards west, conks | | 1 | | 12 | 12 | 12 | 12 | 10 | | |
| 104 | 426 | Douglas fir | 14, 12 | 18.5 | 14 | | | Poor | Topped @ 15', conks, codominant leaders with included bark x2 @ root crown | | 1 | | 14 | 14 | 14 | 14 | 18.5 | | |
| 105 | 427 | Douglas fir | 8 | 8 | 12 | | | Poor | Tag on #428, self-corrected lean towards west, lean towards east, topped @ 20' | | 1 | | 12 | 12 | 12 | 12 | 8 | | |
| 106 | 428 | Douglas fir | 13 | 13 | 14 | | | Poor | Topped @ 15', conks | | 1 | | 14 | 14 | 14 | 14 | 13 | | |
| 107 | 429 | Douglas fir | 10, 8 | 13 | 10 | | | Poor | Co-dominant leaders with included bark x2 @ root crown, topped @ 10' | | 1 | | 10 | 10 | 10 | 10 | 13 | | |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | | 8 | 9 | | 10 | | | 1 | 1 | | | | |
|-----|----------|-----------------|--------------|-------------|----------------|-------|-------|--------|--|--------|------------|--------------|----|-------|--------|----|------|-----------------|----------|
| | | | | | | | | | | Propo | osed A | ction | С | RZ/TF | Z/LO | D | | Н | Η |
| | Tree | | DBH | Adj. | Drip- line | Wind- | OK in | | | Ret. | Rem | iove | R | adius | in fee | et | _ | DB | д ОВН |
| # | Tag # | Species ID | (in) | DBH (in) | radius (ft) | firm | Grove | Health | Defects/Comments | Viable | Non-viable | Construction | N | W | Е | S | DBH | DBH Healthy DBH | Retained |
| 108 | 433 | Douglas fir | 11 | 11 | 10 | | | Poor | Topped @ 10' | | 1 | | 10 | 10 | 10 | 10 | 11 | | |
| 109 | 434 | Douglas fir | 16 | 16 | 8 | | | Poor | Topped @ 15', mostly dead | | 1 | | 8 | 8 | 8 | 8 | 16 | | |
| 110 | 435 | Douglas fir | 8 | 8 | 6 | | | Poor | Topped @ 15' | | 1 | | 6 | 6 | 6 | 6 | 8 | | |
| 111 | 436 | Douglas fir | 20, 12, 8 | 24.5 | 16 | | | Poor | Co-dominant leaders with included bark x3 @ root crown, topped @ 15', dead wood, broken branches, moss and lichen, conks | | 1 | | 16 | 16 | 16 | 16 | 24.5 | | |
| 112 | 437 | Cherry | 14, 8 | 16 | 18 | | Y | Fair | Co-dominant leaders with included bark x2 @ root crown, moss and lichen, dead wood, broken branches, exposed roots, typical of species | | | 1 | 18 | 18 | 18 | 18 | 16 | 16 | |
| 113 | 438 | Cherry | 9, 11 | 14 | 16 | | | ОК | Co-dominant leaders with included bark x2 @ root crown, self-corrected lean towards west, moss and lichen, dead wood, broken branches, exposed roots, typical of species | | | 1 | 16 | 16 | 16 | 16 | 14 | 14 | |
| 114 | 439 | Douglas fir | 15 | 15 | 15 | | | Poor | Topped @ 15' | | 1 | | 15 | 15 | 15 | 15 | 15 | | |
| 115 | 440 | Douglas fir | 8 | 8 | 8 | | | Poor | Topped @ 10', taps hollow | | 1 | | 8 | 8 | 8 | 8 | 8 | | |
| 116 | 441 | Douglas fir | 8 | 8 | 4 | | | Poor | Conks, mostly dead | | 1 | | 4 | 4 | 4 | 4 | 8 | | |
| 117 | 442 | Douglas fir* | 9 | 9 | 6 | | | Poor | Topped @ 10', conks | | 1 | | 6 | 6 | 6 | 6 | 9 | | |
| 118 | 443 | Douglas fir | 16 | 16 | 10 | | | Poor | Topped @ 10', conks | | 1 | | 10 | 10 | 10 | 10 | 16 | | |
| 119 | 444 | Douglas fir | 12 | 12 | 8 | | | Poor | Mostly dead, topped @ 10', taps hollow | | 1 | | 8 | 8 | 8 | 8 | 12 | | |
| 120 | 445 | Douglas fir | 16 | 16 | 6 | | | Poor | Tag on #444, mostly dead | | 1 | | 6 | 6 | 6 | 6 | 16 | | |
| 121 | 446 | Douglas fir | 18 | 18 | 14 | | | Poor | Tag on #444, topped @ 15' | | 1 | | 14 | 14 | 14 | 14 | 18 | | |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | | 8 | 9 | 10 | | | | | 11 | | | 12 | |
|-----|----------|-------------|-------------|-------------|------------------------|---------------|----------------|--------|---|--------|------------|--------------|----|-------|--------|----|------|---------|----------|
| | | | | | | | | | | Prop | osed A | ction | С | RZ/TF | Z/LO | D | | т | Į |
| | Tree | Species ID | D.D.I. | Adj. | Drip- | \A(' | 014: | | | Ret. | Rem | nove | R | adius | in fee | et | + | DBH | DB |
| # | Tag # | | DBH (in) | DBH (in) | line radius (ft) | Wind- firm | OK in Grove | Health | Defects/Comments | Viable | Non-viable | Construction | N | W | E | S | DBH | Healthy | Retained |
| 122 | 447 | Douglas fir | 14 | 14 | 18 | | | Poor | Tag on #444, topped @ 20', lean towards west | | 1 | | 18 | 18 | 18 | 18 | 14 | | |
| 123 | 448 | Douglas fir | 15 | 15 | 10 | | | Poor | Tag on #444, topped @ 20' | | 1 | | 10 | 10 | 10 | 10 | 15 | | |
| | | | | | | | | | 123 | 33 | 67 | 23 | | | | | 2334 | 1278 | 685 |

^{*} Shared tree

Offsite potentially impacted trees:

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | | 8 | 9 | 10 | | | 11 | | | | | 12 | |
|----|------------------|------------------|---------------|-----------------------|------------------------|---------------|----------------|--------|---|--------|--------------------|---|----|-------|----|----|-----|-------------|--------------|
| | Tues | | | ٨ - ١٠ | Drip- | | | | | Act | osed ion ain | | | RZ/TF | | | | ЭВН | рвн |
| # | Tree Tag # | Species ID | DBH inches | Adj. DBH inches | line radius feet | Wind- firm | OK in Grove | Health | Defects/Comments | Viable | Non- viable | | N | W | E | S | НВО | Healthy DBH | Retained DBH |
| 1 | А | Deodora cedar | 24 | 24 | 12 | | | ОК | Asymmetric canopy towards west, thin canopy, east side branches removed for power | 1 | | | 12 | 12 | 12 | 12 | 24 | 24 | 24 |
| 2 | В | Silver maple | 16 | 16 | 18 | | | ОК | Moss and lichen, co- dominant leaders with included bark x2 @ 10' | 1 | | | 18 | 18 | 18 | 18 | 16 | 16 | 16 |
| 3 | С | Cherry | 22 | 22 | 24 | | | Poor | Previous large scaffold failure @ 12' towards east | | 1 | | 24 | 24 | 24 | 24 | 22 | | |
| 4 | D | Maple | 12 | 12 | 5 over fence | | | ОК | Typical of species | 1 | | | 5 | 5 | 5 | 5 | 12 | 12 | 12 |
| 5 | F | Maple | 12 | 12 | 5 over fence | | | ОК | Typical of species | | | 1 | 5 | 5 | 5 | 5 | 12 | 12 | |
| 6 | G | Maple | 12 | 12 | 5 over fence | | | ОК | Typical of species | | | 1 | 5 | 5 | 5 | 5 | 12 | 12 | |
| 7 | Н | Maple | 12 | 12 | 5 over fence | | | ОК | Typical of species | 1 | | | 5 | 5 | 5 | 5 | 12 | 12 | 12 |
| 8 | I | Maple | 12 | 12 | 5 over fence | | | ОК | Typical of species | 1 | | | 5 | 5 | 5 | 5 | 12 | 12 | 12 |
| 9 | J | Maple | 10 | 10 | 5 over fence | | | ОК | Typical of species | | | 1 | 5 | 5 | 5 | 5 | 10 | 10 | |
| 10 | К | Maple | 10 | 10 | 5 over fence | | | ОК | Typical of species | 1 | | | 5 | 5 | 5 | 5 | 10 | 10 | 10 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 7 | 8 | 9 | 1 | 0 | | | 1 | | | aquair | 12 | |
|----|------------------|-------------|---------------|-----------------------|------------------------|---------------|----------------|--------|--|--------------------|-------------|---|----|--------|----|----|--------|-------------|------------|
| | | | | | Drip- | | | | | Prop Act Ret | ion | | | CRZ/TF | | | | ВН | рвн |
| # | Tree Tag # | Species ID | DBH inches | Adj. DBH inches | line radius feet | Wind- firm | OK in Grove | Health | Defects/Comments | Viable | Non- viable | | N | W | E | S | рвн | Healthy DBH | Retained [|
| 11 | L | Maple | 10 | 10 | 5 over fence | | | ОК | Typical of species | 1 | | | 5 | 5 | 5 | 5 | 10 | 10 | 10 |
| 12 | М | Maple | 10 | 10 | 5 over fence | | | ОК | Typical of species | 1 | | | 5 | 5 | 5 | 5 | 10 | 10 | 10 |
| 13 | N | Maple | 10 | 10 | 5 over fence | | | OK | Typical of species | 1 | | | 5 | 5 | 5 | 5 | 10 | 10 | 10 |
| 14 | 0 | Maple | 10 | 10 | 5 over fence | | | OK | Typical of species | 1 | | | 5 | 5 | 5 | 5 | 10 | 10 | 10 |
| 15 | 301 | Douglas fir | 28 | 28 | 24 | | Y | Fair | Topped @ 35' for power, strong leaders, elongated branches | | | 1 | 24 | 24 | 24 | 24 | 28 | 28 | |
| 16 | 302 | Douglas fir | 14 | 14 | 14 | | | Poor | Topped @ 35' for power, dead wood, broken branches, elongated branches | | 1 | | 14 | 14 | 14 | 14 | 14 | | |
| 17 | 303 | Douglas fir | 34 | 34 | 22 | | | Fair | Topped @ 35' for power, weak laterals, dead wood, broken branches, elongated branches | | 1 | | 22 | 22 | 22 | 22 | 34 | | |
| 18 | 304 | Douglas fir | 10 | 10 | 8 | | | Poor | Topped @ 35' for power, low live crown ratio <1% | | 1 | | 8 | 8 | 8 | 8 | 10 | | |
| 19 | 305 | Douglas fir | 16 | 16 | 15 | | | Poor | Topped @ 35' for power, low live crown ratio <1% | | 1 | | 15 | 15 | 15 | 15 | 16 | | |
| 20 | 306 | Douglas fir | 20 | 20 | 20 | | Y | Fair | Topped @ 35' for power, low live crown ratio <5%, dead wood, broken branches | | | 1 | 20 | 20 | 20 | 20 | 20 | 20 | |
| 21 | 307 | Douglas fir | 14 | 14 | 24 | | | Poor | Topped @ 35' for power, moss and lichen, low live crown ratio <5% | | 1 | | 24 | 24 | 24 | 24 | 14 | | |

Susan Prince ISA Certified Arborist #PNW 1481 – A TRAQ/TRACE Certified #481 Creative Landscape Solutions

425.890.3808

| 1 | 2 | 3 | 4 | 5 | 6 | - | 7 | 8 | 9 | 1 | 10 | | | 10 | | 10 | | 1 | 1 | | | 12 | |
|----|------------------|-----------------|---------------|-----------------------|---------------------------------|---------------|----------------|--------|---|--------------------|-------------|--|----|-------|----|----|-----|-------------|------------|--|--|----|--|
| | | | | | | | | | | Prop Act Ret | ion | | | RZ/TF | | | | 3Н | рвн | | | | |
| # | Tree Tag # | Species ID | DBH inches | Adj. DBH inches | Drip- line radius feet | Wind- firm | OK in Grove | Health | Defects/Comments | Viable | Non- viable | | N | W | E | S | рвн | Healthy DBH | Retained D | | | | |
| 22 | 308 | Douglas fir | 20 | 20 | 24 | | | Poor | Topped @ 35' for power, dead wood, broken branches, elongated branches, leader failure @ 30' towards west | | 1 | | 24 | 24 | 24 | 24 | 20 | | | | | | |
| 23 | 392 | Hemlock | 18 | 18 | 14 | | | Poor | Topped @ 15' | | 1 | | 14 | 14 | 14 | 14 | 18 | | | | | | |
| 24 | 406 | Douglas fir | 16 | 16 | 16 | | | Poor | Topped @ 30' | | 1 | | 16 | 16 | 16 | 16 | 16 | | | | | | |
| 25 | 407 | Douglas fir | 10 | 10 | 18 | | | Poor | Topped @ 30' | | 1 | | 18 | 18 | 18 | 18 | 10 | | | | | | |
| 26 | 408 | Douglas fir | 16 | 16 | 18 | | | Poor | Topped @ 30', asymmetric canopy towards west | | 1 | | 18 | 18 | 18 | 18 | 16 | | | | | | |
| 27 | 409 | Douglas fir | 22 | 22 | 18 | | | Poor | Topped @ 30', co-dominant leaders with included bark x2 @ 20', asymmetric canopy towards west | | 1 | | 18 | 18 | 18 | 18 | 22 | | | | | | |
| 28 | 410 | Douglas fir | 12 | 12 | 16 | | | Poor | Tag on #409, topped @ 30' | | 1 | | 16 | 16 | 16 | 16 | 12 | | | | | | |
| 29 | 411 | Douglas fir | 16 | 16 | 16 | | | Poor | Tag on #409, topped @ 30' | | 1 | | 16 | 16 | 16 | 16 | 16 | | | | | | |
| 30 | 413 | Douglas fir | 26 | 26 | 18 | | | ОК | Hanger, dead wood, broken branches, typical of species | 1 | | | 18 | 18 | 18 | 18 | 26 | 26 | 26 | | | | |
| 31 | 417 | Red alder | 16 | 16 | 12 | | | Poor | Tag on post southwest, decay throughout, topped @ 20' | | 1 | | 12 | 12 | 12 | 12 | 16 | | | | | | |
| 32 | 418 | Douglas fir | 18 | 18 | 16 | | | Poor | Topped @ 15' | | 1 | | 16 | 16 | 16 | 16 | 18 | | | | | | |
| 33 | 430 | Douglas fir | 8 | 8 | 6 | | | Poor | Mostly dead, topped @ 8' | | 1 | | 6 | 6 | 6 | 6 | 8 | | | | | | |
| 34 | 431 | Douglas fir | 8 | 8 | 10 | | | Poor | Tag on #430, topped @ 10' | | 1 | | 10 | 10 | 10 | 10 | 8 | | | | | | |
| 35 | 432 | Douglas fir | 9 | 9 | 14 | | | Poor | Tag on #430, topped @ 25' | | 1 | | 14 | 14 | 14 | 14 | 9 | | | | | | |
| 36 | 442 | Douglas fir* | 9 | 9 | 6 | | | Poor | Topped @ 10', conks | | 1 | | 6 | 6 | 6 | 6 | 9 | | | | | | |

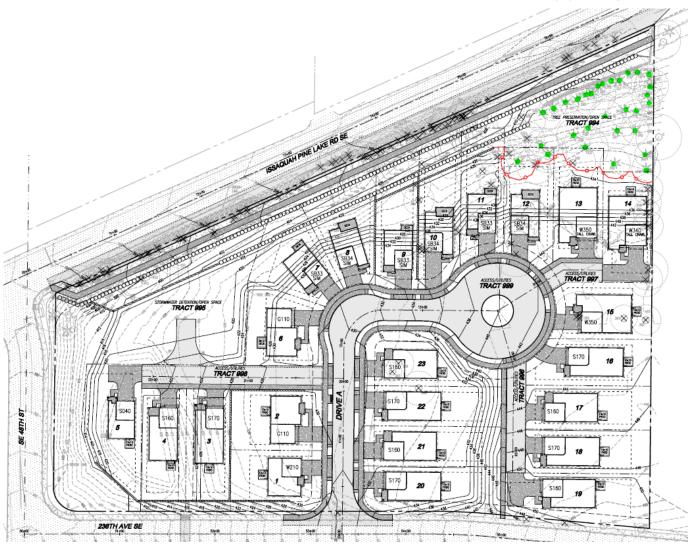
11 20 5 542 234 152

Site:



Proposed site improvements:

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Discussion and Conclusion:

| Onsite Significant Tree Retention Calculations | |
|--|------|
| Total number of significant onsite trees | 123 |
| Total number of significant non-viable trees | 66 |
| Total number of significant viable trees | 57 |
| Total number of significant (viable) trees removed for site improvements | 23 |
| Total number of significant trees DBH inches | 2234 |
| Total number of viable significant tree DBH inches | 1278 |
| Total number of required significant tree DBH inches (2234 X .3) | 670 |
| Total number of retained significant tree DBH inches | 685 |
| Mitigation | 0 |

| ROW & Offsite Significant Tree Retention Calculations | |
|--|-----|
| Total number of significant ROW trees | 36 |
| Total number of non-viable significant ROW trees | 20 |
| Total number of viable significant ROW trees | 16 |
| Total number of ROW viable significant trees to be removed | 5 |
| Total number of significant trees DBH inches | 542 |
| Total number of viable significant tree DBH inches | 234 |
| Total number of retained significant tree DBH inches | 152 |

The Maclean Project (now Parkland Heights) is a 5.3-acre site located west of Issaquah/ Pine Lake Road in Issaquah. The parcel is accessed from the east by an asphalt drive up to a single-family residence located on the south side of the property. the parcel has a grove of trees located between the home and Issaquah Pine Lake Road; the remainder of the site has been cleared as pasture.

It appears Issaquah Pine Lake Road was constructed by excavating a steep hillside. The hillside is not constrained by a retaining wall and in some places the soil has been undermined by weather. Over the years trees have volunteered in the area whose growth has been "maintained" by the utility department. Many of the trees are now at high risk of failure, growing on a bank of soil, undermined by weather, and topped by utilities. For this reason, I deemed some trees located where it was too hazardous to individually tag. Those trees are identified on the spreadsheet with the tag location identified on surrounding trees.

Almost all of the trees on the eastside of the property next to the road are non-viable, those that are not, are proposed to be removed; the east side of the property will include new two retaining walls to adequately constrain the slope.

Proposed improvements include demolishing the existing home, garage and outbuildings and grading the site, and dividing the acreage into twenty-three (23) new single family residential lots. There is a new access proposed from the west.

Most of the viable trees are located on the SE corner of the site which will be maintained as a tree tract. The non-viable trees in this area can be retained (without credit) as habitat trees, however, at the conclusion of the build out the trees should be reassessed to ensure that they do not present a risk to traffic, pedestrians, or new homes; if they do so, they can be reduced in height to mitigate that risk.

The site has one hundred-twenty-three (123) onside trees, sixty-seven (67) are non-viable. Of the fifty-six (56) viable trees, twenty-three (23) viable trees plus sixty-seven (67) non-viable trees for a total of ninety (90) trees are proposed to be removed for site improvements. The remaining thirty-three (33) trees are proposed to be retained.

The site has a total of 2234 DBH inches; 1278 DBH inches are viable. City of Issaquah code requires that 30% of the tree DBH inches be retained or 2234*.3 = 670 DBH inches. The project proposes to retain 685 DBH inches. Most of the retained trees are located on the SE corner in Tract 994, and several are located on the north side of the site behind a fence. All retained trees will be protected prior to grading and construction by fencing secured at the dripline of the trees.

There are thirty-six (36) offsite trees potentially impacted by the proposed site improvements. Twenty (20) trees are non-viable (many located on the east side of the site) of the thirteen (13) viable trees five (5) are in east and west easement that will need to be removed for access or site improvements. No mitigation is necessary.

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ANSI A300: American National Standards Institute (ANSI) standards for tree careChlorotic:

discoloration caused by lack of chlorophyll in the foliage

Conifer: A tree that bears cones and has evergreen needles or scales

Crown: the above ground portion of the tree comprised of branches and their foliage

Crown raise pruning: a pruning technique where the lower branches are removed, thus raising theoverall height of the crown from the ground

DBH or DSH: diameter at breast or standard height; the diameter of the trunk measured 54 inches (4.5 feet) above grade

Deciduous: tree or other plant that loses its leaves annually and remains leafless generally during the cold season

Epicormic: arising from latent or adventitious buds

Evergreen: tree or plant that keeps its needles or leaves year-round; this means for more than one growing season

Increment: the amount of new wood fiber added to a tree in each period, normally one year.

ISA: International Society of Arboriculture

Landscape function: the environmental, aesthetic, or architectural functions that a plant can have

Lateral: secondary or subordinate branch

Limits of disturbance: The boundary of minimum protection around a tree, the area that cannot be encroached upon without possible permanent damage to the tree. It is a distance determined by a qualified professional and is based on the age of the tree, its health, the tree species tolerance to disruption and the type of disturbance. It also considers soil and environmental condition and previous impacts. It is unique to each tree in its location.

Limited visual assessment: a visual assessment from a specified perspective such as foot, vehicle, or aerial (airborne) patrol of an individual tree or a population of trees near specified targets to identify specified conditions or obvious defects (ISA 2013)

Live crown ratio: the percentage of living tissue in the canopy versus the tree's height. It is a good indicator of overall tree health and the trees growing conditions. Trees with less than a 30% Crown ratio often lack the necessary quantity of photosynthetic material necessary to sustain the roots; consequently, the tree may exhibit low vigor and poor health.

Monitoring: keeping a close watch; performing regular checks or inspections

Owner/manager: the person or entity responsible for tree management or the controlling authority that regulates tree management

Pathogen: causal agent of disease

Phototropic growth: growth toward light source or stimulant

ROW: Right-of-way; generally referring to a tree that is located offsite on a city easement

- Reaction wood: Specialized secondary xylem which develops in response to a lean or similar $_{0.12^{th}}^{\text{rage 20 or 32}}$ mechanical stress, it serves to help restore the stem to a vertical position
- Self-corrected lean: a tree whose trunk is at an angle to the grade but whose trunk and canopy changes to become upright/vertical
- Significant tree: a tree measuring a specific diameter determined by the municipality the tree grows in. Some municipalities deem that only healthy trees can be significant, other municipalities consider both healthy and unhealthy trees of a determined diameter to be significant
- Snag: a tree left partially standing for the primary purpose of providing habitat for wildlife
- Soil structure: the size of particles and their arrangement; considers the soil, water, and air space
- Sounding: process of striking a tree with a mallet or other appropriate tool and listening for tones that indicate dead bark, a thin layer of wood outside a cavity, or cracks in wood
- Structural defects: flaws, decay, or other faults in the trunk, branches, or root collar of a tree, which may lead to failure; may be genetic, or environmental
- Tree credit: A number assigned to a tree by a municipality that may be equal to the diameter of the tree or a numerical count of the tree, or related to diameter by a factor conveyed in a table of the municipal code
- Trunk area: the cross-sectional area of the trunk based upon measurement at 54 inches (4.5 ft.) above grade
- Visual Tree Assessment (VTA): method of evaluating structural defects and stability in trees by noting the pattern of growth. Developed by Claus Mattheck (Harris, et al 1999) detailed visual inspection of a tree and surrounding site that may include the use of simple tools. It requires that a tree risk assessor walk completely around the tree trunk looking at the site, aboveground roots, trunk, and branches (ISA 2013)

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